

SECTION 07 0150.19

PREPARATION FOR RE-ROOFING

LANL MASTER SPECIFICATION

When editing to suit project, author shall add job-specific requirements and delete only those portions that in no way apply to the activity (e.g., a component that does not apply). To seek a variance from applicable requirements, contact the ESM Architectural POC.

When assembling a specification package, include applicable specifications from all Divisions, especially Division 1, General Requirements.

Delete information within "stars" during editing.

Specification developed for ML-3 projects. For ML-1 / ML-2, additional requirements and QA reviews are required.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. [Removal] [Partial removal] [Scarification of surface] of existing roofing system in preparation for new roof membrane system.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

A. New Insulation:

- 1. Basis of Measurement: By the square **foot**.
- 2. Basis of Cost: Includes complete removal of existing insulation, replace with new insulation of specified thickness and in compliance with Section 07 2113, Board Insulation.

B. Existing Insulation - Partial Removal:

- 1. Basis of Measurement: By the square **foot**.
- 2. Basis of Payment: Includes removal of existing insulation, replace with new insulation of specified thickness and in compliance with Section 07 2113, Board Insulation.

C. Repair Existing [Wood] [Metal] Deck:

- 1. Basis of Measurement: By the square **foot**.
- 2. Basis of Payment: Includes replacing corroded or rotted or substandard decking with new material of appropriate thickness and type.

1.3 SYSTEM DESCRIPTION

Use this article carefully; restrict statements to describe components used to assemble system. Do not repeat statements made in SUMMARY Article; "Section includes" paragraph.

Edit the following paragraph to identify principle tasks required for the Project. When more than one area is involved with differing degrees of material removal, generalize the following paragraph and describe areas and extent of work in SCHEDULE at end of this section.

- A. [Entire Roof Area:] [Roof Areas as Indicated:][:] Remove existing [roofing gravel,] [perimeter flashings,] [base flashings,] [counter flashings,] [vent stack flashings,] [roofing membrane,] [insulation,] [vapor retarder,] [air barrier,] [sheathing,] [damaged deck,] [and] [].
- B. Remove existing lightning protection system and reinstall with new material in accordance with Section 26 0529, Hangers and Supports for Electrical systems, Lightning Protection System. Return existing air terminals to LANL.
- C. LANL will remove roof mounted [mechanical equipment,] [electrical equipment,] [and] [] Contractor shall allow LANL a minimum of [2] working days notice to accomplish the aforementioned tasks.

1.4 COMPLIANCE ISSUES

- A. Roof Membrane Manufacturer's Requirement.

1.5 SUBMITTALS

- A. Submit the following in accordance with Section 01 3000, Submittals:
 - 1. Field Reports: Indicate concurrence of thermographic analysis of existing membrane, insulation, and deck.

1.6 QUALITY ASSURANCE

- A. Uniform Building Code: ICBO UBC-97

1.7 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not remove existing roofing membrane when weather conditions threaten integrity of building contents or intended continued occupancy.

- B. Removal of coal tar roof material requires additional personnel protection equipment (PPE) and occupant protection due to the potential of coal tar dust becoming acidic.
- C. Contractor personnel will not be exposed to occupant operations hazards while roofing activities are in progress.

1.9 SCHEDULING

- A. Schedule Work with building occupants so as not disrupt operations.
- B. Schedule Work to coincide with installation of new roofing or overlay system.

PART 2 PRODUCTS

2.1 COMPONENTS

- A. Temporary Protection: Sheet [polyethylene] [fiber reinforced plastic]; furnish sandbag weights to retain sheeting in position.
- B. Protection Board: When required shall be in conformance with Section 07 2113, Board Insulation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing roof surface is clear and ready for work of this section and in compliance with roofing manufacturer's requirements.

3.2 PREPARATION

- A. Sweep roof surface clean of loose matter.
- B. Remove loose refuses and dispose off site.
- C. LANL Construction Inspector will inspect completeness of preparation.

3.3 EXISTING CONSTRUCTION

- A. DEMOLITION
 - 1. Remove existing roof membrane and loose bituminous materials.
 - 2. Comply with insulation and membrane manufacturer's instructions for preparation of substrate to receive roofing system.

3. Clean substrate of dust, debris, and other substances detrimental to the system work. Remove sharp projections.
4. Remove metal counter flashings.
5. For overlay roofs over asphalt or coal tar built up roofs, remove the surface of existing roof material to top most layer of felt. Surface shall be clear of high spots or lumpy areas.
6. Notify LANL Construction Inspector to inspect substrate after preparation. Contractor shall not proceed with installation until LANL Construction Inspector has approved substrate.

B. Remove metal counter flashings.

Paragraph "C" applies when roof is to be overlaid.

- C. Scrape or scarify roofing gravel from membrane surface [without causing serious damage to membrane felts].
- D. Remove [damaged portions of] roofing membrane, perimeter base flashings, flashings around roof protrusions, [pitch pans and pockets,] [insulation vents,] [and] [].

Paragraphs "E" and "F" apply when roof is to be replaced.

- E. Remove and replace all damaged portions of roofing [insulation] and [decking].
- F. Remove perimeter base flashings, flashings around roof protrusions, [pitch pans and pockets,] [insulation vents,] [and] [].

Paragraph "G" applies when roof is to be overlaid.

- G. Cut and lay flat membrane blisters.
- H. Remove [damaged] insulation [and fasteners,] cant strips, blocking, and [].
- I. Remove [vapor retarder,] [sheathing paper,] [underlay,] [sheathing,] [and] [].
- J. Remove damaged deck materials.
- K. Repair existing [wood] [steel] [concrete] [] deck surface to provide smooth working surface for new roof system.

3.4 FIELD QUALITY CONTROL

Include this article only when independent inspection or testing will be part of materials preparation and removal process or when exact condition of existing roof system is uncertain. Include additional paragraphs as appropriate.

- A. The LANL Construction Inspector, in coordination with the Contractor, will identify [exact] [approximate] limits to material removal as well as field demolition identified areas.

3.5 PROTECTION OF INSTALLED CONSTRUCTION

- A. Install temporary protection board over uncovered deck surfaces where materials or walkways are to be determined.
- B. Install temporary sheeting up and over parapets and curbing. Retain sheeting in position with [weights]. [Temporary fasteners.]
- C. Provide for surface drainage from sheeting to existing drainage facilities.
- D. Do not permit traffic over unprotected or repaired deck surface.

3.6 SCHEDULES

Include schedule when differing locations require definition as to extent of removal work and identify subsequent roofing system to be installed.
Consider the following examples when developing Project schedule.

- A. Main Roof: Remove flashings, gravel, membrane and underlayment, in preparation for new protected membrane roof system.
- B. Penthouse Roof: Remove flashings and gravel; provide protection board over existing insulation in preparation for new conventional membrane roof system specified.

END OF SECTION

Do not delete the following reference information:

FOR LANL USE ONLY

This project specification is based on LANL Master Specification 07 0150.19 Rev. 0, dated January 6, 2006.